

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

CONVOLVE, INC.

v.

DELL INC., et al.

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Case No. 2:08-CV-244-RSP

MEMORANDUM ORDER

After a nine-day trial, the jury found that Plaintiff had proved that the asserted claims of the '473 Patent were infringed. Before the Court is Hitachi's Renewed Motions for Judgment as a Matter of Law (Dkt. No. 571, filed August 19, 2011).

APPLICABLE LAW

Judgment as a matter of law is appropriate "[i]f a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue" Fed. R. Civ. P. 50(a) & (b). "The grant or denial of a motion for judgment as a matter of law is a procedural issue not unique to patent law, reviewed under the law of the regional circuit in which the appeal from the district court would usually lie." *Finisar Corp. v. DirectTV Group, Inc.*, 523 F.3d 1323, 1332 (Fed. Cir. 2008).

Under Fifth Circuit law, a court is "especially deferential" to a jury's verdict, and will not reverse the jury's findings unless they are not supported by substantial evidence. *Baisden v. I'm Ready Productions, Inc.*, 693 F.3d 491, 499 (5th Cir. 2012). A motion for judgment as a matter of law must be denied "unless the facts and inferences point so strongly and overwhelmingly in the movant's favor that reasonable jurors could not reach a contrary conclusion." *Id.* at 498 (citation omitted). In other words, "[t]here must be more than a mere scintilla of evidence in the record to prevent judgment as a matter of law in favor of the movant." *Arismendez v. Nightingale Home Health Care, Inc.*, 493 F.3d 602, 606 (5th Cir. 2007).

The Court must review all evidence in the record, and draw all reasonable inferences in favor of the nonmoving party. *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000). However, “[c]redibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are jury functions, not those of a judge.” *Id.* “[T]he court should give credence to the evidence favoring the nonmovant as well as that ‘evidence supporting the moving party that is uncontradicted and unimpeached, at least to the extent that that evidence comes from disinterested witnesses.’” *Id.* at 151 (citation omitted).

DISCUSSION

Defendant moves for judgment as a matter of law that it does not infringe the asserted claims. (Mot. at 2.)

A. Direct Infringement

1. Hitachi, Ltd.

As a matter of background, there were two Hitachi entities involved in this case: Hitachi GST and Hitachi, Ltd. Hitachi first offers the argument that Convolve failed to prove Hitachi, Ltd. infringes. In sum, Hitachi’s argument is that “Dr. DiEuliis[] testified that his infringement analysis applied to only a list of products identified in Hitachi’s Response to Convolve’s First Set of Common Interrogatories,” and that the interrogatory in question (while filed jointly by Hitachi, Ltd. and Hitachi GST) contained a list of hard drives that were “developed, made, and sold by Hitachi GST and not by Hitachi, Ltd.” (Mot. at 2-3.) The problem, however, is that Hitachi did not mention the latter fact in its interrogatory response, instead stating only “the following is a list of hard drives . . . Hitachi believes included optional support for the AAM standard, or have in the past included optional support for the AAM standard.” (PTX-801 at 3; *see also* Mot. at 3.) Hitachi argues that its vague (and arguably incomplete) response was made permissible by the language of Convolve’s interrogatory, because it “[did] not request that the

products of each Hitachi defendant be separately identified.” (Mot. at 3.) The Court disagrees. Hitachi obviously identified this issue at an early stage, and rather than provide complete and accurate information during discovery, made a conscious decision to provide a list of drives without any indication of its position that one of the two entities serving the response had zero involvement with the drives in question. Indeed, it appears to be undisputed that the interrogatory response did contain “a list of all the drives from the two companies,” and that no attempt was made to sort out which were made by Hitachi, Ltd. and which by Hitachi GST. (7/22 A.M. Tr. at 7:15-8:19.) Further, a number of witnesses were provided jointly, none of whom drew the distinction Hitachi argues here. Specifically, Hitachi argues “that Mr. Yamamoto testified on behalf of both entities is of no moment” because he testified that he was technically employed by Hitachi GST since 2003. But while Mr. Yamamoto clearly understood the entity that actually employed him, he also failed to draw the distinction between the entities that Hitachi draws in its Motion, and there appears to be no viable argument that his testimony is not binding on Hitachi, Ltd., given that he was produced as a 30(b)(6) witness on behalf of both Hitachi entities.

Hitachi’s attempt to rely on a linguistic quirk in its response to Convolv’s interrogatory in order to avoid producing a complete and accurate portrait of the facts as it (apparently) sees them is not well taken. The attorneys in this case are experienced and highly skilled, and no doubt understand that this Court has never endorsed “trial by surprise.” Permitting a party to provide vague discovery responses in order to magically produce an “AHA!” moment at the close of the case is not only inconsistent with the Federal Rules of Civil Procedure, but it is also not conducive to the fair administration of justice. To the extent that Hitachi’s position has any merit (and it is not clear to this Court that it does, given that Hitachi’s own statements – preadmitted as evidence in this case – could alone serve as a legally sufficient evidentiary basis

for a jury to find that both Hitachi entities in this case were responsible for the infringing drives), that position was waived by its continued (and apparently deliberate) silence on the issue.¹

2. *Evidence for Each Accused Product*

Hitachi next contends that “Convolve failed to identify at trial exactly which products it was accusing and failed to proffer evidence that every one of those products infringed the ‘473 patent.” (Mot. at 4.) Hitachi specifically alleges that “. . . Dr. DiEuliis’ testimony describing the group of accused products [was] inconsistent.” (Dkt. 611 at 2, *see also* Mot. at 4-5.) The two portions of testimony containing the alleged inconsistencies are as follows:

Q. And we're going to talk about Hitachi hard drives specifically, but let's just group this all together. When I refer to the accused Hitachi drives or the Hitachi drives that are the subject of your opinions, are we referring to the Hitachi drives that were -- the list of Hitachi drives that were provided in response to Common Interrogatory No. 1?

A. That's correct...

(7/18 P.M Tr. at 79:10-17.)

Q. We're going to switch gears to our last Defendant, and that's Hitachi. What Hitachi products are covered by your opinions?

A. I have covering [sic] the Hitachi hard disk drives that had the ATA interface support the AAM feature set, and that change their seek mode, their acoustic levels as -- as a function of that AAM level.

Q. And what did you do to identify the specific Hitachi hard drives that actually change the acoustic levels of the hard drive using the AAM feature set?

A. Hitachi produced a list of approximately 31 to 3200 disk drives that -- that do this, that -- Hitachi has claimed that they -- that these drives do that.

Q. Did you review source code for the Hitachi products that are accused of infringing here?

A. I did.

Q. And earlier, we showed the jury a flow diagram.

MS. BUTLER: If Ryan could pull that up real quickly.

Q. (By Ms. Butler) Do you recall your testimony as it related to this flow diagram?

¹ It is further noted that even Hitachi's own proposed verdict form did not draw any distinction between the Hitachi entities in question, which could alone suffice as a waiver of this issue. (*See* Dkt. 410.)

A. Yes.

Q. And do the Hitachi products -- once they receive the AAM level, do they operate as described in this flow diagram and as you testified to when we first talked about this flow diagram?

A. Yes, they do.

(*Id.* at 84:20-85:23.) It is entirely unclear to the Court how these two excerpts of testimony conflict. In both, Dr. DiEuliis cites to Hitachi's own identification of devices -- there is no real internal conflict in Dr. DiEuliis' testimony. Instead, Hitachi appears to take issue with the actual substance of Dr. DiEuliis' testimony, as Hitachi claims that "[n]ot all the drives identified in the interrogatory responses . . . change acoustic modes in response to AAM commands." (Dkt. 611 at 2.) And although the response in question arguably contained some vagueness, it was in response to a request to identify all products which utilize AAM to change acoustic levels. Hitachi essentially argues that a jury could not accept its response as an actual response to the question it was asked because Hitachi attempted to provide a less detailed (and potentially incomplete) response. (Mot. at 6.) This position is not only flawed from a legal perspective (a jury could reasonably take its response as a response to the question it was asked), but is also unavailing from an equity perspective. Further, the testimony of Hitachi's corporate representative (upon which Dr. DiEuliis based much of his own testimony) also suggested that all of the accused drives did, in fact, change acoustic levels using AAM. (*See, e.g.*, 7/19 A.M. Tr. at 83:21-90:2.) Convolv presented evidence on the accused products in the form of expert testimony, factual testimony, and discovery obtained from Hitachi. The Court finds that Convolv did properly identify the products it accused of infringement at trial, and the jury had a legally sufficient evidentiary basis to find that those products infringed.

3. *User Interface*

Hitachi next contends that Convolv failed to prove infringement because Hitachi drives do not contain a "user interface." (Mot. at 7-12.) The item Convolv identified at trial as the

“user interface” was the ATA interface. Hitachi interprets this Court’s claim construction to entirely exclude any system which requires anything more than the “user interface” for a user to alter settings. In other words, Hitachi reads into the term “user interface” every component between the settings and the end user, and suggests that in order to prove the existence of such an interface, Convolv must provide proof as to each individual electronic component. (*Id.* at 11-12.) This interpretation stretches beyond the construction adopted by the Court. The mere fact that a computing system may require components additional to those recited in the claims to function as designed does not mean the existence of those external components must be proved to show infringement.² For example, even if the Court were to adopt Hitachi’s proposal to require proof of a complete “computer and [] a user interface utility supporting AAM,” a user would doubtlessly need some form of input device to interact with said graphical user interface – but that does not mean that Convolv would then be obligated to prove the existence of a mouse or keyboard to show infringement, or that the need for an input device for the system to function in an ideal fashion creates a divided infringement problem. Rather, the touchstone is what is *actually recited by the claims*. Here, Convolv presented a sufficient evidentiary basis for a reasonable jury to find that the ATA interface at issue constituted control (e.g. software, hardware, firmware, or a combination thereof) accessible to the end user that allows a person to alter operational parameters.

Later in its brief, Hitachi contends that Convolv also failed to prove the “generat[ion of] a user interface,” because “initializing the interface to a disk drive, which physically exists at all

² In contrast, what this Court found would not satisfy “accessible to an end user” was a situation in which an entirely distinct and separate device was necessary to make changes to the system: “[i]f, for example, an end user had to replace a ROM chip in order to alter settings, open the hard drive enclosure, or purchase a specialized device and write code to alter the drive’s settings.” (Dkt. 211 at 17.)

times, is not ‘generating’ a user interface.” (Mot. at 15-16.) Notwithstanding the almost metaphysical nature of Hitachi’s argument, the uncontroverted evidence presented at trial showed that firmware within the Hitachi drive (essential to the functionality of the ATA interface) is initialized when power is applied to the drive. (*See, e.g.*, 7/18 P.M. Tr. at 87:16-89:12.) Although Hitachi argues that “the ATA interface always physically exists,” it appears from the record to be similarly undisputed that without power applied and the firmware initialization complete, the physical portion of the ATA interface serves no purpose – and is not accessible to an end user. (Mot. at 16.) Thus, the Court finds no merit to Hitachi’s argument with respect to “generating.”

4. *Shaping Input Signals*

Hitachi next argues that that Convolv failed to show “shaping input signals” as required by the claim language. Hitachi contends that “no transformation is ever applied to the input signal.” (Mot. at 12.) Neither party disputes that the evidence presented at trial suggests that the processor utilizes at least one pre-set parameter to generate a signal that is then provided to the voice coil motor, and that the shape of the input signal changes depending on the mode of the drive. Hitachi simply contends that this is not a transformation.³ This Court disagrees, and finds that a reasonable jury could conclude that applying a parameter to change the shape of an input signal suffices as shaping input signals according to this Court’s claim construction. Additionally, Hitachi’s own fact witness testified that it used a “low-pass filter” to “smooth . . . the signal going to the hard disk drive,” and that by doing so, “[t]he noise is reduced.” (7/22 A.M. Tr. at 112:12-113:24.) Coupled with the acknowledgement of Hitachi’s own expert that “[a] filter is an example of something that can transform an input signal,” it is apparent to this

³ The Court observes that, as with Western Digital, it is entirely unclear to the Court what Hitachi would consider a transformation in light of its arguments here.

Court that the jury's conclusion that Hitachi's drives performed the "shaping input signals" feature of the claims was reasonable. (7/25 A.M. Tr. at 45:17-78.) Here, Convolve presented testimony at trial that changing the "parameters" in question changes the shape of the input signal, and thus there is a transformation. (Dkt. 590 at 6, citing 7/18/11 Aftn. Tr. at 39:15-40:4.) The Court finds that it was entirely reasonable for a jury to accept Dr. DiEuliis' position regarding the "transformation" requirement, as well as the other evidence presented on this point.

5. *Reduce Selected Unwanted Frequencies*

Hitachi also contends that the claims limitations requiring the reduction of "selected unwanted frequencies" are not met. (Mot. at 14.) Hitachi argues "[the] unrebutted testimony explained that this graph shows an overall reduction in sound noise at all frequencies, not a reduction of any 'chosen' frequency." (*Id.*, emphasis in original.) Hitachi continues: "[a]nd the graph shows this unambiguously: every frequency band, not just the 4000 hertz band, is reduced between normal mode and quiet mode." (*Id.*) Hitachi's position, then, is that this Court should read a negative limitation into the claims, and find that if all frequencies are reduced, "a chosen frequency" is not. Hitachi's argument entirely fails to recognize its position that there must be a selection of "a chosen frequency" – notably singular in nature – directly conflicts with the actual claim language, which explicitly allows for the selection of multiple "frequencies". (*See, e.g.*, '473 patent at claim 7.) When you add this to the open-ended nature of the claim's preamble ("comprising"), the fact that the Court has already repeatedly rejected Hitachi's implicit argument that Convolve must show an **explicit and intentional** selection command,⁴ and the actual evidence presented at trial (including the very evidence detailed in Hitachi's own brief),

⁴ (*See, e.g.*, Dkt. 211 at 29.)

Hitachi's argument carries no weight and the Court finds that the jury in this case had a legally sufficient basis for finding infringement of this limitation.

6. *Method Claims 7 and 10*

Hitachi next argues that "Convolve proffered no evidence that Hitachi practiced [method claims 7 and 10.]" (Mot. at 16.)⁵ Dr. DiEuliis did testify – in great detail – regarding how the code in Hitachi drives "alters settings in the user interface for one of the seek time and the seek acoustic noise level of the data storage device." (7/18 Aftn. Tr. at 90:4-95:17.) Further, Dr. DiEuliis cited a Hitachi testing document (which was also introduced as evidence in the case) showing Hitachi's acoustic testing results for its drives both in quiet mode and performance mode, as well as circumstantial evidence that Hitachi had confirmed the manner in which its drives operated. (*Id.* at 55:11-57:19, PTX0525; *see also* 7/18 Aftn. Tr. at 91:9-95:17). The Court finds that a reasonable jury could have relied on Dr. DiEuliis' testimony, as well as the documentary evidence he cited, and concluded that Hitachi did perform the "altering settings" step (as well as the other steps required by claims 7 and 10).

7. *One Mode Drives*

Hitachi contends that it "is entitled to judgment as a matter of law with respect to Convolve's claims to the extent they include one mode drives." (Mot. at 16.) Convolve argues that it "did not accuse any single/one mode hard disk drives of infringing the '473 patent." (Dkt. 592.) Hitachi agrees that it is "undisputed that one mode drives do not infringe the '473 patent." (Mot. at 16.) To the extent Hitachi seeks what is essentially a declaration from this Court that one mode drives do not infringe the '473 patent, it is unclear what basis exists to do so given that

⁵ It is worth noting that all parties agree that this issue, standing alone, is a purely legal question that would have no impact on the damages award in this case. (*See* Dkt. 663 at 10 ("Hitachi and Western Digital agree with Convolve that the damages award should remain undisturbed if the Court grants JMOL only as to the direct infringement of claims 7 and 10 by Hitachi and Hitachi."))

no dispute exists on this point, or even how judgment as a matter of law would be an appropriate mechanism if such basis did exist, as Hitachi has not identified any specific portion of the jury's verdict that purports to cover one mode drives. The remaining issue, then, is only Hitachi's reply, which is essentially that several of the Hitachi drives in question do not actually function in two modes. (Dkt. 611 at 7.) That issue was covered in exhaustive detail in the parties' briefing regarding identification of accused products, and the Court's ruling on that issue is contained in full in Section 2 above. The Court finds no additional basis here to grant judgment as a matter of law of non-infringement.

8. *Feature Tool*

Hitachi makes a similar argument with regard to the Hitachi Feature Tool (hereinafter "HFT"), contending that this Court should grant JMOL because "Convolve failed to proffer any evidence of alleged direct infringement with respect to the [HFT] in combination with a hard disk drive." (Mot. at 17.) Convolve acknowledges that it did not accuse the HFT of direct infringement. (Dkt. 592 at 15.) Hitachi responds by noting that Convolve's infringement contentions and pretrial statement included the HFT. (Dkt. 611 at 7-8.) The Court observes that the fact that Convolve initially contended that the HFT constituted infringement is of no moment here, given that Convolve did not present that position to the jury and Hitachi has provided nothing that suggests the jury's finding of direct infringement might be based on HFT. Accordingly, JMOL is inappropriate on this point.

B. Indirect Infringement

Hitachi argues that in addition to direct infringement, this Court should also grant JMOL as to indirect infringement.

I. Inducement

Hitachi offers three bases on which it contends JMOL on induced infringement is proper. First, Hitachi argues that there can be no inducement because the “Federal Circuit has recently held that to establish indirect infringement, a showing of actual direct infringement is necessary – not just that a product is capable of direct infringement.” (Mot. at 18, citing *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1328 (Fed. Cir. 2010).) No party involved with the case appears to dispute this proposition.⁶ Convolv, unsurprisingly, contends that it did show direct infringement by Dell and its customers. Hitachi, although it claims that it is only Dell-specific items that infringe, fails to address the actual direct infringement evidence presented in this case – namely that Dell and its customers used Hitachi’s ATA interface to change the acoustic mode. (Dkt. 611 at 8.) To the extent that Hitachi might then frame Dell’s features at the only “user interface” in question, this issue was squarely addressed and ruled upon by the parties’ briefing (and the Court’s ruling) on “user interface.” (*See supra* at sec. A(3).)

Hitachi next argues that Convolv failed to show that it “induced or encouraged anyone to perform the allegedly infringing acts.” (Mot. at 19.) Hitachi also contends that because Dell “instructed” its manufacturers to include certain functionality, including the ability to change the acoustic mode, it cannot – as a matter of law – induce or encourage the resulting use of such features. Like Western Digital in its Motion for JMOL on this issue, Hitachi provides no precedent for this bold assertion. The Court finds that the mere fact that Dell valued this feature does not mean that Hitachi could not, by including a feature that had no meaningful use except to infringe, encourage Dell’s use of that feature. On the contrary, Hitachi’s knowledge that Dell had

⁶ The Court notes purely as a background matter that while requiring a showing of direct to prove indirect infringement has been hotly litigated since the *Fujitsu* opinion issued, and the law has changed several times since the completion of briefing in this case, the proposition for which Hitachi cites that opinion currently stands as good law.

use for the functionality in question arguably strengthens the specific intent prong of induced infringement.

Finally, Hitachi argues more generally that Convoke simply failed to prove “that Hitachi had the specific intent to cause infringement.” (Dkt. 596 at 20.) Hitachi offers only a one sentence conclusion that Convoke did not prove that Hitachi knew of the ‘473 patent. Hitachi offers a similar one sentence conclusion that Convoke did not prove that Hitachi believed the conduct at issue infringed the ‘473 patent.⁷ The Court disagrees, and notes that the record is replete with evidence, both direct and circumstantial, that suggests that Hitachi possessed the requisite intent, including Hitachi’s possession of Convoke’s offers to license the asserted patent, Convoke’s various positions regarding precisely how the accused functionality infringed, information regarding a prior lawsuit of a competitor with Convoke, and meeting minutes suggesting that Hitachi was involved with a committee that explicitly discussed Convoke’s patents and various infringement positions.

2. *Contributory Infringement*

Hitachi also requests JMOL on contributory infringement. Hitachi presents a number of positions to the Court that were all rejected by the jury, primarily relying on its theory that “[t]he accused AAM feature on these disk drives is suitable for use in changing the mode of a drive from ‘quiet’ to ‘normal,’ which is a substantial non-infringing use.”⁸ (Mot. at 21-22.) This argument is unavailing. The jury, when presented with the arguments as to this question of fact, made a determination that without the ability to change a drive from “performance” (or

⁷ The Court observes that Hitachi’s failure to set forth any basis whatsoever for its positions both fails to meet their JMOL burden and could conceivably rise to the level of waiver.

⁸ The Court observes that there may also be a substantial question regarding whether Hitachi has identified the correct product/functionality to focus upon for its “substantial non-infringing use” analysis, but since the theory Hitachi advances fails regardless, the Court does not address that issue.

“normal”) mode to “quiet” mode – which the Court assumes for the purposes of this hypothetical is infringing – the ability to change from “quiet” mode back to “performance” (or “normal”) mode is essentially non-functional and unsubstantial. The Court finds that this decision was entirely reasonable. *See, e.g., i4i Limited Partnership v. Microsoft Corp.*, 598 F.3d 831, 851 (Fed. Cir. 2010) (affirming jury's decision that defendant engaged in contributory infringement, in light of evidence accused product's noninfringing use 'was not a practical or worthwhile use for the [consumers] for which the [accused device] was designed and marketed').

For the reasons set forth above, the Court holds that the jury's finding that Plaintiff met its burden of proving infringement was reasonable and supported by substantial evidence. Defendant Hitachi's motion for judgment as a matter of law on the grounds that the asserted claims are not directly or indirectly infringed is DENIED.

Willful Infringement

Hitachi finally argues that this Court should grant JMOL on willful infringement. To show willful infringement, “[a] patentee must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent.” *In re Seagate Technology, LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (*en banc*). Once the “threshold objective standard is satisfied, the patentee must also demonstrate that this objectively-defined risk . . . was either known or so obvious that it should have been known to the accused infringer.” *Id.* In addition to the parties' briefing on this issue, Hitachi also submitted a Notice of Supplemental Authority discussing the impact of *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs.*, 682 F.3d 1005, 1008 (Fed. Cir. June 14, 2012). (*See* Dkt. 654.) The Court agrees with Hitachi that *Bard* “[c]larified the law in several ways.” (*Id.* at 1.) Specifically, the *Bard* court “[held] that the objective determination of recklessness, even though predicated on underlying mixed questions of law and fact, is best decided by the judge as a

question of law subject to *de novo* review.” 682 F.3d at 1007-1008. The evidence presented at trial in this case shows that “a reasonable person would have considered there to be a high likelihood of infringement of a valid patent.” *Id.* Accordingly, the Court finds that the objective prong is met.

The jury’s finding that the subjective prong was met was supported by a wealth of evidence. (*See, e.g.*, Dkt. 623 at 8-10.) Accordingly, Hitachi has failed to show that the jury lacked a legally sufficient evidentiary basis on which to find for Convolve on the subjective prong.

Because the objective and subjective prongs of willfulness are both met, Hitachi’s motion for judgment as a matter of law on the ground that the asserted claims are not willfully infringed is DENIED.

CONCLUSION

Hitachi's Renewed Motions for Judgment as a Matter of Law (Dkt. No. 571, filed August 19, 2011) are **DENIED** as set forth above.

SIGNED this 11th day of February, 2015.



ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE